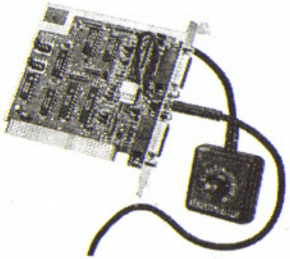
ACM GAME CARD

OWNER'S MANUAL

THRUSTMASTER®

THRUSTMASTER ACM™ GAME CARD



USER'S MANUAL

REV#2.00
TMSCOPE VERSION
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THRUSTMASTER® ACM™ GAME CARD

Thank you for purchasing the ThrustMaster ACM game card. The ThrustMaster ACM game card is specifically designed to meet and exceed the needs of todays high speed computers and complex gaming software. Manufactured with the highest quality materials and to the industries tightest specifications, the ACM game card will provide you with precise calibration for years to come.

Specifically designed to maximize the performance of the ThrustMaster line of Joysticks (FCS™, FLCS, XL Action Controller) the ACM card supports all joysticks. The attached speed dial allows the user to adjust joystick sensitivity relative to the speed of the computer.

COMPATIBILITY

The ThrustMaster ACM game card is designed to operate with IBM PC/XT/AT/386/486/Pentium™ compatible systems.

Note - It is not compatible with Micro Channel Architecture (MCA), which includes most PS/2 models.

INCLUDED

Contained in the ACM box should be the following:

1 - 8 bit ACM game card
1 - Speed Dial cable
1 - 3.5 floppy disk

ACM GAME CARD INSTALLATION INSTRUCTIONS

1 - Turn off computer power and disconnect power cables.

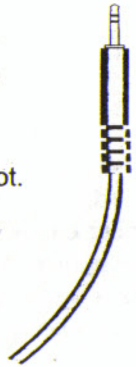
2 - Remove the cover from your computer.

3 - Locate an available expansion slot. Remove the cover from the slots opening and set the screw aside for later use.

4 - Remove and or disable all other game ports on your system. This includes game ports on multi I/O cards, sound cards, and other game cards.

5 - Unplug the speed dial cable from the ACM game card. Note - Try to avoid touching the connector fingers on the bottom of the game card.

6 - Press the ACM game card into the expansion slot. Note - We recommend that you ground yourself before installing the game card into your computer. You can most easily ground yourself by touching the computer housing just prior to installing the game card.

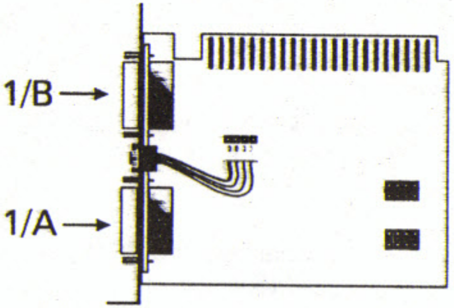


7 - Secure the new game card with the screw.

8 - Replace the housing on the CPU.

9 - Plug the Speed dial cable into the center 1/4" female connector.

10 - Plug your joystick (and rudder pedals, if you have them) into the primary (1/A) connector. The primary game plug (1/A) is furthest away from the edge of the ACM card that fits into your expansion slot.



Note: the second plug (1/B) accesses another dual port game card, which is not currently supported by most software. In most cases, a joystick plugged into this connector would not be recognized by gaming software. The second port can be used as a power source for the Mark II WCS™ The only time you would do this is if you had separated your Joystick from your

Mark II WCS and were using them as separate entities. (See Mark II manual for details).

J3 and J4 jumpers

The ACM game card does not use IRQ's or DMA settings. We recommend that you do not change these jumpers. Just plug it in and go!

For reference the J3 and J4 jumpers are strappable I/0 addresses. The J3 jumper block is pre-set in position 1, which is address 201. Position 2 on J3 is address 203, position 3 is address 205 and position 4 is address 207.

On the J4 jumper block the jumper is pre-set to position 1, which is address 209. Position 2 on J4 is address 20B, position 3 is address 20D and position 4 is 20F.

The non-default addresses are not supported by any current software, and changing the jumpers will cause the ACM card to malfunction.

NOTE - Once you have completed the game card installation, you can use your ACM game card. Although we recommend you take the time to view what we have provided on our floppy, it is NOT needed to run the ACM card (i.e. there are no software drivers needed to make the card functional).

USING MULTIPLE JOYSTICKS

If you would like to use two 2-button joysticks at the same time, you will need to purchase a "Y" cable for joysticks.

Check your local computer or electronics dealer for 15-pin "Y" cables. The "Y" cable will need to be plugged into the primary (A/1) connector on the ACM game card. Please note - Plugging the ThrustMaster FCS into a "Y" cable will not allow the extra two buttons and "HAT" switch to operate. It will function as a two button joystick only.

INSTALLATION AND USE OF SOFTWARE

On the disk you will find the following files.

TMSTICK.COM
TMBBS.TXT
GAMEPORT.EXE
XWCOOL.EXE
XWCOOL.TXT
XWKEY.COM
TMS.EXE

To use any of these files you must first insert the 3.5 floppy into your 3.5 floppy drive. At the DOS prompt, type in the letter that designates your 3.5 drive followed by a colon (e.g. A: or B:). Once you have changed to the floppy drive type DIR and you will see a list of the files included. The files are explained below.

TMSTICK.COM

TMSTICK.COM is a program that allows you set the dead-zone on your Joystick. The dead zone is the area around the center of the stick.
TMSTICK.COM is only for use with all versions of FALCON, MiG or HORNET by Spectrum Holobyte.

TMBBS.TXT

TMBBS.TXT is a list of BBSs that have ThrustMaster help files or on line help.

GAMEPORT.EXE

GAMEPORT is a diagnostic program that will find enabled gameports on your computer. Plug a joystick into the suspect port and run GAMEPORT. You will get a message if the joystick if found. It is extremely important to only have one game card enabled on your computer at one time.

XWCOOL.EXE and XWCOOL.TXT

XWCOOL.EXE is a TSR for use with X-WING by Lucas Arts. XWCOOL.TXT is a text file that explains its use.

TMS.EXE

TMS.EXE is a diagnostic program designed to check the calibration of your joystick, throttle, rudder pedals, and other ThrustMaster controllers. TMS also provides you with numerical data to assist you in determining the proper speed dial setting on your Speed Adjustable gamecard.

To run TMScope type "TMS" at the prompt. In addition to the "More on TMS" section that follows, there is a Help File in the program. When TMS is used for the first time it will create two files that help it remember what is on your system. One file is TMS.CFG. The other is TMDVEVS.DAT.

MORE ON TMS

TM Scope or TMS for short, provides you with a tool for diagnosing your controls and game card. The information that follows will provide the information that you will need to set TMS up on your system. This will allow you to analyze and adjust your gaming hardware for peak performance.

Note - You must have a mouse to use the TMSCOPE program.

TMScope Setup

Before you can make full use of the TMScope program, you must

configure it to match the hardware connected to your system. This is necessary so TMScope can accurately display and calibrate your control devices. Setup is accomplished by using the Port Selector to choose the port you want to configure, then using the SET HARDWARE option to fill out an Equipment List for the selected port.

Port ID's

The ports are referenced with a number/letter combination which indicates the card number (1-4) and the port on the card (A or B). The TM ACM card with factory jumpers in place will use Ports 1/A and 1/B. Non-ACM cards and virtually all current software only support Port 1/A. There's a listing of all of the actual I/O ports for each ID in the HELP' section on the Port Selector.

Selecting Equipment

When you select the SET HARDWARE option it brings up the TMScope Equipment List. This shows all of the devices supported by TMS, as well as some generic options for devices that aren't specifically listed. Simply use the mouse to check the box next to each piece of equipment that you have connected to the port. TMS will ensure that you don't assign conflicting equipment to a single port.

Analog Types

Most analog control devices fall into two groups, Centering and Non-Centering. Centering devices are those that return to center position when they are released, like joysticks, rudder pedals, and steering wheels. Non-Centering controls either return to one end of travel when released or else they don't return to any position at all. Throttles mechanisms usually fall into this category.

Analog Input References

TMS uses X1, Y1, X2, and Y2, to refer to the 4 analog inputs on the port. These correspond to the way the inputs would be used if two joysticks were connected to the game port in a standard two stick setup. Other equipment may be used, for instance throttles and rudders, but the X1, Y1, X2, and Y2 input references are always used to refer to them throughout TMScope for consistency.

Generic Controls

For equipment that isn't specifically shown on the Equipment List, you can use the generic devices. There are Centering and Non-Centering selections for all analog channels, as well as four references for analog buttons. To use these, determine which of the analog and button inputs the device uses. Then check all the inputs which are used, choosing Centering or Non-Cntrg for each analog input as appropriate.

Saving Your Configuration

Once you've checked off all the equipment for the selected port, press the DONE button to return to the main screen. Repeat the process for all ports on which you have equipment connected. When all ports have been configured, select the SAVE CONFIG

option to save your configuration to disk. It will be reloaded automatically when TMScope is run. You'll need to reconfigure only if you change controls.

Calibration Positions

Whether a device centers or not determines its correct position for using the RECAL TMS option. Centering type devices should be centered. Non-Centering devices should be set to their maximum value position. Control devices that will return to one end of their travel when released do this automatically. Others need to be moved there. Use the Now' value in the Raw Data Display and move the control to the end that gives the highest reading.

Sample Setup

Suppose you have an FCS, an RCS, and a WCS MkII connected to your primary game port To set it up:

1. Use the PORT SELECTOR to set Port 1/A
2. Push SET HARDWARE to bring up the Equipment List
3. Check the boxes marked RCS and WCS2/FCS/Hat
4. Push DONE to exit
5. Push SAVE CONFIG to save the configuration to disk
6. TMScope setup is complete

Card/Port Selector

The CARD/PORT Selector is in the top right corner of the main TMS screen. It is used to select the game card and port. TMS will use it for port analysis and hardware selection. Port 1/A is the port which most applications use.

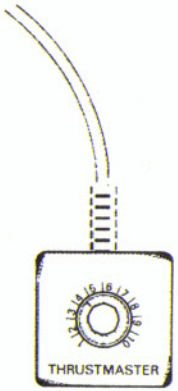
Physical Port Assignments

1/A - 201 - Currently the only dual-port address used by games.
1/B - 209
2/A - 203
2/B - 20B
3/A - 205
3/B - 20D
4/A - 207
4/B - 20F

Recal TMS

The RECAL TMS Button is used to recalibrate the TMScope Display and to reset the values for MIN and MAX in the RAW DATA Display. To recalibrate, center sticks and rudders, release the FCS hat switch, and pull any throttles, etc all the way back, then just click the button. This selection in no way affects the calibration of any of your controls when you are in a game.

Recal Speed



With the RECAL SPEED Button, you can set your adjustable-speed game card for a value which has been found suitable for use in most games. To adjust card speed, center the joystick. If you have an FCS the hat must be released. If there's a WCS II, place the RED switch in DIGITAL and the BLACK switch in ANALOG. Press and hold the RECAL SPEED button. Adjust card speed to center the PORT SPEED meter.

Set Hardware

This selection brings up the Equipment Checklist for the port currently selected. It is used to tell TMS what equipment you have connected to your game card so TMS can correctly display and calibrate. To select equipment, use your mouse to check all of the boxes applying to the selected port. TMS will not let you assign two devices to any single port which would conflict with each other.

Load Config

Use this selection to load the current hardware configuration stored on disk. TMS will reload your configuration automatically when the program starts.

Save Config

Use this selection to save your current hardware configuration to disk. The configuration saved will be reloaded automatically whenever TMS is run, so you don't need to reconfigure each time.

TMS Help

The TMS HELP selection is used to access the TMS Help Screens.

TMS Info

The TMS INFO button will display Version and Copyright data about TMS. Press a mouse button or key to exit this screen.

Exit TMS

Use EXIT TMS or press ESC twice to leave TMS and return to DOS.

Analog Display

The Analog Display is the main feature of the TMS Display. It shows, graphically, the position of all four of the analog inputs on the currently selected port. You can use the display to check the range of movement of your joysticks, etc. In the lower left corner of the Analog Display is the FCS hat display. It indicates the position of the FCS hat switch if your system includes one.

Port Speed Display

The Port Speed Display is located in the top left corner of the TMScope display. It is used by the RECAL SPEED option to adjust the speed of your game card.

Port Buttons Display

The Port Button Display is used to indicate the current state of the 4 switch inputs to the port. It is located at the left of the TMScope display, just below the Port Speed Display.

Raw Data Display

The Raw Data Display shows Min, Current, and Max values for each of the ports analog inputs. This display is right below the Port Button Display on the left side of the TMScope screen. Use this display to check the range of values returned by any of the four analog inputs on the currently selected port. Min and Max values will be reset by TMS whenever you recalibrate using the RECAL TMS Button.

For technical assistance, call ThrustMaster technical support: (503) 639-3200 ext 3400 8am - 5pm Pacific standard time.

For additional on-line support look for ThrustMaster representatives on the following services:

Compuserve - 76520,3325

Prodigy - GVRR37A

AOL - ThrustMast

GEnie - Thrust.dude

Internet - thrustmaster@checksix.com

For on-line support of ThrustMaster products via Compuserve, call 1-800-524-3388 and ask for representative #559 to get your FREE introductory membership and a $15.00 usage credit. If you are already a member of Compuserve, type the command GO THRUSTMASTER at any ! prompt to get to ThrustMaster's support area.

Compuserve offers a wide variety of on-line services such as investment information, technical support, travel reference libraries, demo programs, game forums, electronic mail and much, much more.

FCC ID: KP3BDN

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Information to user:

Any modifications not expressly approved by ThrustMaster Inc. could void the user's authority to operate this equipment.

The resulting system, including any accessories or components marketed with this equipment, complies with the FCC Part 15 Class B regulations.

If any extension cable(s) is added to this device, it must be shielded.

THRUSTMASTER®

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Portland, OR
97223-4337

(503) 639-3200
Fax (503) 620-8094

Technical Support (503) 968-3400
Service and Repair (503) 968-3411

Warranty

There are no warranties, express or implied, of merchantability or fitness for any purpose except as follows:

ThrustMaster warrants this product to be free from defects in material and workmanship for a period of one year from the validated date of purchase.
Physical damage due to misuse or abuse is NOT covered. Product returned for repair or replacement must be shipped to ThrustMaster, freight paid.
Products will be returned at ThrustMaster's expense.

900-0015-000

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